

claimed levels of halogen and carbon" (page 2, Paper No. 20060808). The Applicant respectfully disagrees and traverses the above-referenced assertions in the Official Action.

The specification discloses that in a silicon oxide insulating film, 1×10^{17} to 5×10^{20} cm⁻³ of halogen is detected from the insulating film while the carbon concentration is 5×10^{19} cm⁻³ or less, desirably 1×10^{18} cm⁻³ or less (see, e.g., page 5, lines 14-19). Also, the specification discloses that a silicon oxide film is deposited as an interlayer insulating film (see, e.g., page 13, lines 21-25).

In response, the Official Action argues that the statements of support refer to a "gate-insulating film" but not to an "interlayer insulating film." The Applicant disagrees. The Applicant notes that the title itself, the "Field of the Invention" section, and the "Summary of the Invention" broadly discuss an "insulating film" and not just a "gate-insulating film." Specifically, page 3, lines 10-17, and page 5, lines 14-29, discuss "an insulating film consisting essentially of silicon oxide" and the claimed concentrations are included at this point. Explicit support for an "interlayer insulating film" is provided at page 13, line 22.

Regarding the "gate-insulating film," the specification, at page 12, lines 6-7, states that a gate-insulating film is formed "by positive column CVD using TEOS, oxygen and TCE as raw materials." Similarly, regarding the "interlayer insulating film," the specification, at page 13, lines 22-23, states that "The silicon oxide film 209 was formed by positive column CVD, using TEOS, oxygen and TCE as raw materials." It is also taught that "the apparatus used for the filming was the same as in Example 1" at page 13, lines 24-25. Therefore, the "interlayer insulating film" at page 13, line 22, may be formed using a similar method and materials as that used to form the "gate-insulating film."

As such, the Applicant respectfully submits that the teachings with respect to the formation of an "insulating film" at the claimed concentrations (page 3, lines 10-17, and

page 5, lines 14-29) may generally be applied either to the "gate-insulating film" or to the "interlayer insulating film."

Therefore, the specification clearly discloses a silicon oxide film having a specific concentration of halogen elements and carbon, which is used as an interlayer insulating film, as claimed in the present claims. The Applicant respectfully submits that claims 19-26 and 35-62, when read in light of the specification, are adequately described and supported in the specification. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 112 are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



Eric J. Robinson
Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C.
PMB 955
21010 Southbank Street
Potomac Falls, Virginia 20165
(571) 434-6789